1972

EC72-1856 Ornamental Diseases

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ORNAMENTAL DISEASES

EC 72-1856

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1. DAMPING-OFF OF SEEDLINGS: Several types of soil-borne fungi such as *Phythium, Fusarium* and *Rhizoctonia* are responsible for root rots and damping-off. They may attack the germinating seed or seedlings before or after emergence from soil. Low temperatures and high moisture favor damping-off diseases. Control includes sanitation and seed treatment with captan, maneb or zineb. Genetic resistance is available in specific selections of flowers and other ornamental plants.

2. AZALEA LEAF GALL: *Exobasidium vaccinii.* Occurs on azalea, rhododendron, cranberry, camellia and blueberry. White galls are formed on leaves and stems. Leaves become thickened or fleshy and turn pale green or white. A fleshy rosette of leaves or a gall which becomes bladderlike appears at the tip of the branch. Remove young galls and destroy them. Use a preventive application of Bordeaux mixture or zineb.

3. CAMELLIA FLOWER BLIGHT: *Sclerotinia camelliae, S. Sclerotiorum.* This blight is confined to the flower. If infection begins near the base of the petals the entire center of the flower may be killed. Sclerotia are produced on the flowers when they have fallen to the soil. Sclerotia may survive for two or more years in the soil. They will produce spores which will reinfect the flowers. Pick diseased flowers and remove all fallen blooms. Prevent infection by a 3-inch deep wood chip mulch around the plant. Spray the soil with ferbam or captan.

4. BLACK SPOT OF ROSE: *Diplocarpon rosae.* Symptoms are circular to irregular black spots, up to ½ inch in diameter and bordered by a yellow margin. Spots occur on the upper surface of leaves. Black dots may be seen in the center of the spots. Severely infected leaves turn yellow and drop. Remove and burn infected leaves and canes in the fall. Apply a dormant spray of lime-sulfur (1 to 10) before spring growth starts. Optimum control of this disease is achieved with weekly applications of any foliar fungicide such as: benomyl, captan, Daconil 2787, folpet, maneb or zineb.

5. IRIS LEAF SPOT: *Didymellina macrospora (Heterosporium iridis).* Found in Nebraska on iris freesia, narcissus and blackberry-lily. Early symptoms are dark brown spots surrounded by a yellow region which will enlarge to oval lesions with red-brown borders and gray centers. The disease is serious after blooming and is usually confined to the upper half of the leaf. Remove and burn old leaves at the end of the season and clip diseased leaves in midsummer. If the disease is serious, spray with fresh Bordeaux mixture (4-4-50) (3 tablespoonfuls per gallon of water). Repeat sprays at 10-14 day intervals. Fore, folpet and maneb sprays will also provide good control.

6. POWDERY MILDEW OF PHOTINA: *Podosphaera leucotricha and Sphaerotheca pannosa.* Common on many shrubs and flowers in Nebraska from mid-season until fall. Symptoms include a white to grayish powdery coating on leaves, buds, flowers and young shoots. Plant parts may be dwarfed or curled and leaves may die prematurely. Use resistant varieties of flowers and shrubs, if available, and avoid overcrowding and damp, shady locations. Spray or dust at 7-10 day intervals using Acti-dione, benomyl, Daconil 2787, folpet, Karathane or sulfur. Avoid applying fungicides when the temperature is 85^0 F or above. Collect and burn leaves, stems and debris in the fall.

7. FIRE BLIGHT OF TULIP: *Botrytis tulipae.* Lesions on the flower begin as minute spots, whitish to light brown in color, later enlarging and becoming whitish-gray with brown margins. The entire flower may be blasted and the stem may rot off. Outer scales of the bulb may also be affected, causing dwarfing of the plant and blasting of the flower buds. Plant sound, blemish-free, healthy bulbs (without husks) in light, well-drained soil in a sunny location. Rotate the location every 3-4 years. Remove and burn all infected parts. Dig the bulbs in early summer and store at 40^0 F in low humidity. Spray once or twice weekly when leaves emerge until just before the flower opens. Botran, captan, ferbam, Fore, maneb, thiram, Terrachlor or zineb may be used. Treat the beds before planting with PCNB (Terrachlor).

8. LEAF SPOT OF CHRYSANTHEMUM: *Septoria chrysanthemilla, S. leucanthemi, Cylindrosporium chrysanthemi, Cercospora chrysanthemi, Phyllosticta chrysanthemi.* Similar fungi which cause leaf spot diseases on a wide range of flowers and ornamentals. *Septoria* Leaf Spot produces small, dark brown spots that increase in size until they coalesce, become dark brown or black. Numerous tiny black fruiting bodies of the fungus are usually visible in the infected parts. Affected leaves drop prematurely. *Cylindrosporium* Leaf Spot produces dark brown spots with yellowish margins. These spots increase in size, causing the death of the infected leaves which cling to the stem. Remove and destroy infected leaves. Spray plants several times during the growing season with benomyl, captan, maneb or zineb.

9. DIEBACK OF CAMELLIA: *Glomerella cingulata (Colletotrichum gloeosporioides).* This fungus, commonly called anthracnose, may cause canker, dieback, fruit rot or leaf spots on a wide variety of plants. Dieback is characterized by the formation of cankers and the dying-back of twigs and branches. Prune and burn dead or dying twigs and discolored wood around cankers on large branches. Paint the wounds with a tree dressing compound containing a fungicide. Spraying with Bordeaux mixture (4-4-50) or captan will reduce invasion through scars left by fallen leaves. Use captan or ferbam as a fungicidal dip for scions and to clean grafting tools.

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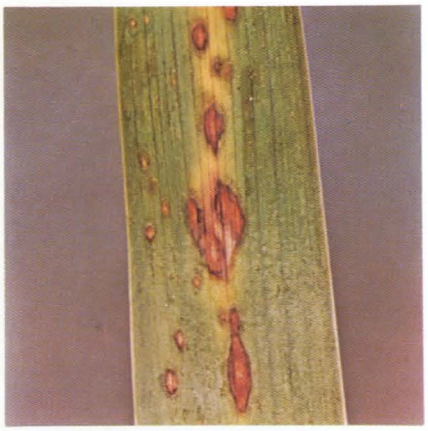
An Aid to Identification and Control

1. DAMPING-OFF OF SEEDLINGS

2. AZALEA LEAF GALL

3. CAMELLIA FLOWER BLIGHT

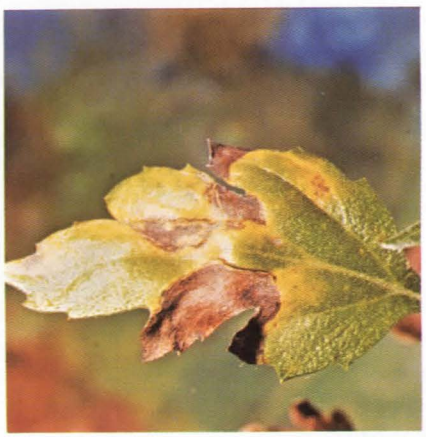
4. BLACK SPOT OF ROSE



5. IRIS LEAF SPOT

6. POWDERY MILDEW OF PHOTINIA

7. FIRE BLIGHT OF TULIP



8. LEAF SPOT OF CHRYSANTHEMUM

9. DIEBACK OF CAMELLIA

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